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December 8, 2004

South Carolina Public Service Commission  
Attention: Docketing Staff  
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Columbia, South Carolina 29211

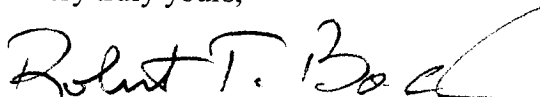
Re: *Application of Chem-Nuclear Systems, LLC*  
(SCPSC Docket No. 2000-366-A) (Fiscal Year 2004-2005)

Dear Sir or Madam:

Enclosed herewith for filing with the Commission please find the original Responses of Chem-Nuclear Systems, LLC, to the Discovery Requests (Set No. 1) of the South Carolina Budget and Control Board. By copy of this letter and Certificate of Service appended to the responses, I am serving opposing counsel of record.

Should you have any questions with respect to this matter, please do not hesitate to contact me.

Very truly yours,

  
Robert T. Bockman

Enclosures

cc: David K. Avant, Esquire  
Hana Pokorna-Williamson, Esquire  
The Honorable Max K. Batavia  
The Honorable Henry Dargan McMaster  
Florence P. Belser, Esquire  
Frank R. Ellerbe, Esquire

BEFORE  
THE PUBLIC SERVICE COMMISSION OF  
SOUTH CAROLINA

Docket No. 2000-366-A

IN RE: Application of Chem-Nuclear Systems, )  
LLC, a Division of Duratek, Inc., for )  
Adjustment in the Levels of Allowable )  
Costs and for Identification of Allowable )  
Costs ( for Fiscal Year 2004-2005 )  
\_\_\_\_\_ )

**RESPONSES OF CHEM-  
NUCLEAR SYSTEMS, LLC  
TO B&CB'S DISCOVERY  
REQUESTS (Set No. 1)**

Applicant Chem-Nuclear Systems, LLC, herein propounds its responses to the Discovery Request of the South Carolina Budget and Control Board (Set No. 1), dated November 19, 2004, as follows:

INTERROGATORIES

1. **In paragraph 17 of its Application, CNS requests \$5,809,175 in fixed costs for the fiscal year 2004-2005, which is an increase of \$385,707 over the proposed adjustment in fixed costs of \$5,423,468 for the fiscal year 2003-2004. Please provide a breakdown showing the cost categories, the amount of increase requested for each, and an explanation for each increase.**

The following table summarizes the changes in fixed costs from the actual costs incurred in FY 2003-2004 to the amount proposed for FY 2004-2005. The cost categories are shown with the amount of increase requested for each and an explanation of each increase. The cost categories of labor and fringe and Corporate Allocation (G&A) are generally labor-cost driven categories subject to the 3.5% per year inflationary factor agreed to during the collaborative review of the Operations and Efficiency Plan (OEP). The non-labor costs are subject to the 2% per year inflationary factor agreed to during that review.

	Actual Costs Incurred in FY 2003- 2004	Proposed Costs for FY 2004-2005	Change From FY 2003-2004 to FY 2004-2005	% Change	Comments
Labor and Fringe	\$2,758,135	\$2,854,670	\$96,535	3.5%	Normal labor increase
Non-Labor	\$1,147,781	\$1,405,755	\$257,974	22.5%	See Note below
Corporate Allocation (G&A)	\$892,551	\$923,749	\$31,198	3.5%	Normal labor increase
Fixed Costs not subject to 29% margin	\$625,000	\$625,000	0	0	No increase
Total Fixed Costs	\$5,423,467	\$5,809,174	\$385,707	7.11%	

**Note:** The non-labor fixed cost increase is a result of two factors:

1. Actual non-labor costs incurred in FY 2003-2004 were inflated by 2%, and
2. Some costs considered irregular costs for FY 2003-2004 were moved into the fixed cost category for FY 2004-2005. In future years, these costs will be considered part of the fixed cost amount.

The following table identifies amounts associated with each of these non-labor factors:

	<b>FY 2003-2004 Amount</b>	<b>Inflation</b>	<b>Increase Amount</b>
Non-labor fixed costs	\$1,147,781	.02	\$22,956
Costs moved from Irregular to Fixed			
Machinery and equipment rent/lease	\$226,193		
Direct material, miscellaneous	\$285		
Outside Contract Expense	\$3,933		
Subtotal	\$230,411	1.02	\$235,019
Total change in non-labor fixed costs from FY 2003-2004 to FY 2004-2005			\$257,974

FY 2003-2004 is the first year actual costs were accumulated in the general categories of fixed costs, variable costs and irregular costs as agreed to during the collaborative review of the Operations and Efficiency Plan (OEP). The fixed costs identified in Commission Order No. 2004-349 were based on costs identified in the OEP. The OEP was based on cost data collected in the spring of 2002 when CNS owned much of the heavy equipment (e.g., a 140-ton lattice boom crane and a 40-ton hydraulic crane) at the disposal site. As the equipment has aged some of it has been found to be beyond economical repair and has been replaced by rented equipment. Therefore in FY 2003-2004 we can identify these machinery and equipment rental/lease costs as irregular costs. It is now clear that in future years renting and leasing cranes and other equipment required for waste disposal operations and site maintenance will continue and should be considered a fixed cost. Since these costs cannot be effectively linked to an independent variable, it is more appropriate to include them in the fixed cost category. For any future costs that are continuing in nature, we would expect to continue this practice of considering a cost as irregular during the first year it can be identified and measured (i.e., “known and measurable”) and then proposing certain costs to be moved to either fixed or variable as appropriate. If the cost is of a “non-recurring” or unpredictable nature, it would remain in the irregular cost category.

2. **In Exhibit A to the CNS Application, fixed cost proposed adjustment for fiscal year 03-04, G&A is increased from \$686,000, the amount identified in Commission Order No. 2004-349, to \$892,551. Please provide an explanation for the increase.**

The Management Fees/G&A allocation portion of the 2003-2004 fixed cost identified in the Commission Order 2004-349 is not consistent with amounts the Commission approved in previous years. Commission Order 2004-349 identified \$824,418 as the

allowable Management Fees/G&A allocation to Chem-Nuclear for FY 2002-2003 and only \$686,000 for FY 2003-2004. In FY 2003-2004, the allowable Management Fees/G&A allocation to Chem-Nuclear was \$892,551.

Therefore, the increase from the Commission approved Management Fees/G&A allocation to Chem-Nuclear in FY 2002-2003 to the 2003-2004 actual cost requested in the 2004 Application is \$68,133 (\$892,551 - \$824,418).

Chem-Nuclear's parent company, Duratek, allocates the actual corporate Management Fees/G&A amount to each operating division based on the total cost incurred by that operating division each month. This method of allocating Management Fees/G&A was found to be acceptable to the Commission Staff in prior years (Blume's testimony April 2004 hearing page 35 lines 19 through 21).

The amount of \$686,000 for Management Fees/G&A allocation to Chem-Nuclear indicated in the Commission Order 2004-349 for FY 2003-2004 is significantly low. It is not consistent with the amount approved by the Commission in the previous year and there is no justification for predicting a reduction from the prior year. And, it is low when the method established by the Commission staff in FY 2002-2003 for allocating the actual corporate Management Fees/G&A is applied. Therefore, we are requesting that the Commission identify \$892,551 as the allowable amount for the Corporate Management Fees/G&A allocation portion of the fixed costs for FY 2003-2004.

3. **In Exhibit B, Page 1 to the CNS application (item identified as "Insurance Premiums"), CNS requests \$941,301.46 as an irregular cost. Please provide a breakdown for the various insurance premium costs showing (a) type of insurance, (b) named beneficiaries of the policies, and (c) annual costs.**

The beneficiaries of the insurance policies are Duratek and its subsidiaries. The following table outlines insurance costs:

<b>Insurance</b>	<b>FY 2002-2003</b>	<b>FY 2003-2004</b>
Automobile	\$20,831.59	\$17,403.99
General Insurance	\$101,483.84	\$141,620.46
Nuclear Policy	\$278,859.60	\$309,952.44
Nuclear Property	\$83,090.43	\$197,164.70
Non-Nuclear Policy	\$98,861.16	\$132,986.12
Nuclear Liability (Pollution Legal Liability)	\$142,080.00	\$142,080.00
Prior Period Adjustment	(\$2.44)	\$93.75
Total	\$725,204.18	\$941,301.46

Although the Application identifies the amount of \$941,301.46 for insurance premiums, a credit of \$11,571.73 for the Nuclear Policy was identified after the application was submitted. This credit brings the total insurance premium cost that CNS will request the Commission identify as allowable for FY 2003-2004 to \$929,492.75.

4. In Exhibit B, Page 1 to the CNS Application (item identified as “Decontamination and Corrective Actions”), irregular costs associated with two corrective actions are noted (Labor \$10,426.87 and Non-Labor (\$10,047.04). For both cases, please describe who was responsible for the damage that necessitated the additional costs. If a generator, customer, or shipper was responsible, was the party billed for the additional costs incurred?

At this time we are still in the process of gathering the information for this response. We will submit the answers within two weeks.

5. For the item identified as “Large Component Disposal” contained in Exhibit B, Page 2 of the CNS application, please provide an itemized breakdown for non-labor costs shown in the table.

Large Component Disposal projects in FY 2003-2004 included the Connecticut Yankee Reactor Pressure Vessel (CY RPV) and the Big Rock Point (BRP) RPV. Also included were a number of components that had been stabilized in their custom size vaults with at least 2.5 inches of grout on all sides of the component. These items were a Peach Bottom Reactor Coolant Pump (RCP), a Hatch RCP, two TVA RCPs, CY Regenerative Heat Exchanger (RHX), and twelve boxes from the Navy containing Rebound Stop Magnet Assemblies and Leadscrew Assemblies. In March 2004 we also disposed of eight reactor coolant piping nozzles from CY. These nozzles were disposed of in four cylindrical vaults with no grouting/stabilization.

The following table summarized the non-labor costs for the large component disposal projects:

Cost Item	CY RPV	BRP RPV	Other Projects
1. Transport costs to move RPV on site	\$290,000.00	\$54,000.00	
2. Cost of disposal skid	\$50,000.00		
3. Registered Land Surveyor (RLS)	\$2,066.50	\$2,146.26	
Chemicals			\$294.00
Parts and Equipment			\$1.33
Outside Contract Expense (see items 1, 2 and 3 above)			
Direct Materials – Misc (includes stone, crusher run, sand, encap frame for CY RHX, and steel supports for RCPs and Navy Boxes)	\$3,153.54	\$4,262.99	\$13,558.41
Disposal Vault Costs			\$72,037.60
Other Travel			\$415.80
Subcontract-Other			\$2,091.19
Totals	\$345,220.04	\$60,409.24	\$88,398.33

6. In subsection (b) of the item identified as “Other Irregular Costs” contained in Exhibit B, Page 4 of its Application, CNS requests reimbursement for \$25,534.50 paid to an affiliated company for mechanically compacting waste generated at and by the Barnwell site (“site-generated waste”) prior to disposal. This waste was compacted at a separate Duratek Facility located near the Barnwell disposal site. Please respond to the following questions:
- a. What was the volume of this waste prior to compacting?
  - b. How was the \$25,534.50 determined?
  - c. Please show quantitatively how compacting the waste was the most efficient alternative for the waste. For example, provide a table comparing Chem-Nuclear’s overall disposal/handling/processing costs for this alternative to other alternatives for managing the waste.
  - d. For each fiscal year, 2001, 2002, 2003 and 2004, what was the volume of Barnwell site-generated waste (after compaction or other processing) disposed at the Barnwell site?

Site generated DAW (Dry Active Waste) was not compacted in FY 2000-2001 through FY 2002-2003. Therefore no measurement of the volume of site-generated waste was made in those years. In FY 2003-2004, the volume of site-generated DAW sent for compaction was measured while other DAW volume (such as wood shoring and other non-compactable dunnage from van shipments) was not measured. The table and notes provided in the attachment to these responses provide other information requested. Prior to FY 2003-2004, all site-generated waste was disposed of in available space in disposal vaults or in other locations approved by SC Department of Health and Environmental Control (SC DHEC). As explained in the attachment, some of the disposal vault space previously occupied by compactable waste can be made available for other wastes.

The waste customers typically send to the Duratek Consolidation and Services Facility (DCSF) for compacting can vary widely in its composition and in the work required to sort and segregate the waste prior to compaction. Therefore, there is not a standard DCSF rate schedule for this service. The rate of \$1.50 per pound is the lowest rate currently charged by the DCSF for compacting because the site-generated waste was already sorted. The rate of \$1.50 per pound includes the cost of a compactor metal box and the cost of transferring the waste back to the disposal site.

Other options for reducing the volume of site-generated DAW are more costly than compacting at DCSF. For example, the cost for transportation of a sealand container (about 1000 cubic feet of waste and about 4000 pounds of waste) one-way to the Duratek Facilities in Bear Creek, Tennessee is \$850.00. The cost to incinerate that pre-sorted waste is at least double the cost of compacting it at DCSF.

Handling site generated DAW at the disposal site is fundamentally the same as it was prior to using the compacting option. In previous years, all site-generated DAW had to be moved to the disposal trench and placed in available space in disposal vaults. In FY 2003-2004, site-generated compactable DAW was moved to a sealand container and then

transferred to the DCSF. In FY 2003-2004 the cost to move site-generated DAW from the disposal site to the DCSF and then back to the disposal site following compaction was done at no charge based on the local nature of the transportation involved.

7. **In subsection (c) of the item identified as “Other Irregular Costs” contained in Exhibit B, Page 4, to its Application, CNS requests \$49,937.04 in irregular costs for an accounting consultant. Please provide a detailed explanation of the basis for this cost.**

In March 2003, a personnel change left the Barnwell Disposal Site with the Quality Assurance manager position vacant. A person to perform those Quality Assurance manager duties did not come on board until September 2003. The Quality Plan requires internal and external audits, surveillances, and evaluations of quality-affecting activities throughout the year to maintain compliance with the Duratek Quality Assurance Program. With the vacant position and the time required to qualify the incoming person, the audits and surveillances had not been completed on schedule. A Quality Assurance consultant was hired to assist in performing Quality Assurance audits, surveillances, and other Quality Assurance support. With this assistance, the required audits and other activities were completed by the end of 2003.

8. **In subsection (b) of the item identified as “Additional Irregular Costs” contained in Exhibit B, Page 4, to the CNS Application, a total of \$270,396.61 is requested for non-labor costs associated with slit trench offload operations and other waste disposal operations. Please provide an itemized breakdown of these costs.**

At this time we are still in the process of gathering the information for this response. We will submit the answers within two weeks.

9. **In Exhibit C of the CNS Application, a table is provided which reflects a vault price of \$31.23 per cubic foot for Class A waste. Please provide the disposal price for each kind of standard vault paid in fiscal years 2001, 2002, 2003, and 2004.**

At this time we are still in the process of gathering the information for this response. We will submit the answers within two weeks.

#### REQUEST TO PRODUCE

1. **Please produce any documents mentioned in any of the above interrogatories or referred to in any response to any interrogatory.**

See Attachment 1.

2. **Please produce any document referred to in responding to any of the above interrogatories.**

See Attachment 1.

Robert T. Bockman  
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By: Robert T. Bockman  
Robert T. Bockman

December 8, 2004

Columbia, South Carolina



**Site Generated Waste Disposal Cost Savings**

Materials or wastes generated as a result of site operations are generally disposed inside concrete disposal vaults. These materials include: blocking and bracing materials used in radioactive material shipments received at the disposal site, disposable Personnel Protective Equipment (PPE), plastic shoe covers, plastic bags, rags, vacuum cleaner residue, and other similar materials. Most of the site-generated waste is classified as Dry Active Waste (DAW). In some cases, the volume of the DAW to be disposed in vaults can be reduced by compacting the waste with a box compactor. In other cases, the material itself, its dose rate or contamination levels may preclude compacting. The compactor at the Duratek Consolidation and Services Facility (DCSF) near the disposal site was used to process some site-generated DAW. The following table illustrates the cost savings achieved in FY 03-04 (a total of \$24,486) by this compacting process:

Date	Original DAW Volume (cu.ft.)	DAW Weight (lbs)	Disposal Vaults Required for Uncompacted DAW	Uncompacted Disposal Vault Cost	Compacted DAW Volume (cu.ft.)	Disposal Vaults Required for Compacted DAW	Compacted Disposal Vault Cost	Cost to Compact (\$1.50 per lb.)	Compacted DAW Total	Savings
Jul 03	1,024.00	4,216	2.14	\$14,971.44	122.00	0.25	\$1,749.00	\$6,324.00	\$8,073.00	\$6,898.00
Dec 03	1,024.00	4,906	2.14	\$14,971.44	152.00	0.32	\$2,239.00	\$7,359.00	\$9,598.00	\$5,373.00
Mar 04	927.50	3,480	1.94	\$13,572.24	107.00	0.22	\$1,539.00	\$5,634.00	\$7,173.00	\$6,399.24
Apr 04	927.50	3,480	1.94	\$13,572.24	106.00	0.22	\$1,539.00	\$6,217.50	\$7,756.50	\$5,815.74
Total				\$57,087.56				\$25,534.50	\$32,600.50	\$24,485.99

**Assumptions:**

The internal volume of a standard rectangular concrete disposal vault is 680 cubic feet.

The maximum waste loading in a rectangular vault in FY 02-03 was 478.88 cubic feet.

Rectangular disposal vaults cost \$6,996.

Costs to compact the DAW into a metal box at DCSF in FY 03/04 were \$1.50 per pound.

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OF SOUTH CAROLINA

Docket No. 2000-366-A

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LLC, a Division of Duratek, Inc., for )  
Adjustment in the Levels of Allowable )  
Costs and for Identification of Allowable )  
Costs )  
\_\_\_\_\_ )

**CERTIFICATE  
OF SERVICE**

I, ElizaBeth A. Blitch, do hereby certify that I have this date served three (3) copies of the foregoing Responses of Chem-Nuclear Systems, LLC to the Discovery Request (Set No. 1) of the B&CB upon the following parties by causing said copies to be deposited with the United States Mail, first class postage prepaid and addressed as follows:

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South Carolina Budget and Control Board  
Post Office Box 12444  
Columbia, South Carolina 29211

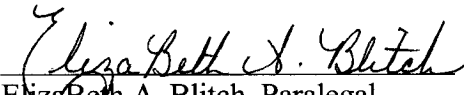
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